

AMENDMENTSIn the Claims:

Please amend claims 167 and 168, as follows:

167. (Once amended) A method to determine the proportion of cells labeled with a product in a cell population, wherein the cells labeled with the product secrete said product, comprising the steps of:

- a) culturing a cell population, wherein said cells of said population are coupled to a capture moiety which specifically binds a product secreted by said cells, under conditions wherein the product is secreted and bound to said capture moiety;
- b) labeling the cells of step a) with at least one additional label moiety that does not label the product bound to said capture moiety; and
- c) comparing the proportion of cells comprising secreted product bound to said capture moiety to the proportion of cells labeled with said label moiety, thereby determining the proportion of cells in the population that secretes the product; and
- wherein said cells are not lysed by said method.

168. (Once amended) A method to determine the amount of cells labeled with a product in a population of cells, wherein the cells are labeled with the product secrete said product, comprising the steps of:

- a) culturing a cell population, wherein said cells of said population are coupled to a capture moiety which specifically binds a product secreted by said cells, under conditions wherein the product is secreted and bound to said capture moiety thereby producing cells labeled with said product; and
- b) determining the amount of cells labeled with said product; and
- wherein said cells are not lysed by said method.

Please add new claims 190-244, as follows:

190. (New) A method to label cells with a product secreted by the cells, comprising culturing said cells under conditions wherein the product is secreted and bound to a capture moiety coupled to said cells, wherein said capture moiety specifically binds the product, thereby labeling cells with said product, and wherein said product is optionally labeled with a label moiety, and wherein said cells are not lysed during said method.

191. (New) The method of claim 190 wherein said capture moiety is coupled to said cells through an anchoring moiety.

192. (New) The method of claim 190 wherein the label moiety is an antibody specific for the product.

193. (New) The method of claim 190 wherein the label moiety is fluorochromated.

194 (New) The method of claim 190 wherein the label moiety is magnetizable.

195. (New) The method of claim 194 wherein the label moiety comprises colloidal magnetic particles with a typical diameter of about 5 to 200 nm.

196. (New) The method of claim 190 wherein the capture moiety is an antibody or an antigen-binding fragment thereof.

197. (New) The method of claim 196 wherein the antibody or antigen binding fragment thereof is bispecific.

198. (New) The method of claim 191 wherein the anchoring moiety is a lipid anchor.

199. (New) The method of claim 191 wherein the anchoring moiety is an antibody, or an antigen-binding fragment thereof.

200. (New) The method of claim 190 wherein said capture moiety is coupled to said cells through direct chemical coupling of the capture moiety to components on the cell surface, optionally through a linking moiety.

201. (New) The method of claim 197 wherein the bispecific antibody specifically binds to the cell.

202. (New) The method of claim 190 wherein said product includes cytokines, antibodies, hormones, enzymes or proteins.

203. (New) The method of claim 202 wherein said cytokine includes IFN γ , IL1, IL2, IL4, IL10, IL12, TGF β , TNF, GMCSF, and SCF.

204. (New) The method of claim 200 wherein said linking moiety includes branched polymers.

205. (New) The method of claim 204 wherein said branched polymers includes modified dextran molecules, polyethylene glycol, polypropylene glycol, polyvinyl alcohol or polyvinylpyrrolidone.

206. (New) The method of claim 190 wherein said cell comprises a cell surface marker.

207. (New) The method of claim 206 wherein said cell surface marker includes CD3, CD4, CD8, CD19, CD20, CD14, CD16, CD15, CD45, class I MHC and Class II MHC molecules, CD34, CD38, CD33, CD56 T cell receptor, Fc receptor, β 2 microglobulin or immunoglobulin.

208. (New) The method of claim 206 wherein said cell surface marker comprises a cell adhesion molecule.

209. (New) A composition comprising cells labeled by the method of claim 190.

210. (New) A composition comprising cells labeled with a product secreted by said cells, wherein said cells are coupled to a capture moiety, wherein said product secreted by said cells is bound to said capture moiety, and wherein optionally, said product is labeled with a label moiety.

211. (New) The composition of claim 210 wherein said capture moiety is coupled to said cells through an anchoring moiety.

212. (New) The composition of claim 210 wherein said capture moiety is an antibody or antigen-binding fragment thereof.

213. (New) The composition of claim 212 wherein said antibody is bispecific.

214. (New) The composition of claim 211 wherein said anchoring moiety is a lipid anchor.

215. (New) The composition of claim 211 wherein said anchoring moiety is an antibody or an antigen-binding fragment thereof.

216. (New) The composition according to claim 210 wherein the label moiety is an antibody specific for the product.

217. (New) The composition according to claim 210 wherein the label moiety is fluorochromated.

218. (New) The composition according to claim 210 wherein the label moiety is magnetizable.

219. (New) The composition of claim 210 wherein said product includes cytokines, antibodies, hormones, enzymes or proteins.

220. (New) The composition of claim 219 wherein said cytokine includes IFN γ , IL1, IL2, IL4, IL10, IL12, TGF β , TNF, GMCSF, and SCF.

221. (New) The composition of claim 210 wherein said cell comprises a cell surface marker.

222. (New) The composition of claim 221 wherein said cell surface marker includes CD3, CD4, CD8, CD19, CD20, CD14, CD16, CD15, CD45, class I MHC and Class II MHC molecules, CD34, CD38, CD33, CD56 T cell receptor, Fc receptor, β 2 microglobulin or immunoglobulin.

223. (New) The composition of claim 221 wherein said cell surface marker comprises a cell adhesion molecule.

224. (New) The composition of claim 210 wherein said capture moiety is coupled to said cells through direct chemical coupling of the capture moiety to components on the cell surface, optionally through a linking moiety.

225. (New) The composition of claim 224 wherein said linking moiety includes branched polymers.

226. (New) The composition of claim 225 wherein said branched polymers includes modified dextran molecules, polyethylene glycol, polypropylene glycol, polyvinyl alcohol or polyvinylpyrrolidone.

227. (New) A kit for the separation of cells that secrete a product, comprising:
- a) a product capture system comprising an anchoring moiety and a capture moiety;
 - b) a label moiety for labeling captured product; and
 - c) instructions for use of the reagents, all packaged in appropriate containers.
228. (New) The kit of claim 227 wherein said anchor moiety is prepared for coupling to the capture moiety.
229. (New) The kit of claim 227 wherein said capture moiety is prepared for coupling to the anchoring moiety.
230. (New) The kit of claim 227 wherein said anchoring moiety is coupled to said capture moiety.
231. (New) The kit of claim 228, 229 or 230 wherein said coupling is via the biotin/avidin system.
232. (New) The kit of claim 227, wherein said product capture system is a bispecific antibody.
233. (New) The kit of claim 227, wherein said label moiety for labeling captured product is magnetizable.
234. (New) The kit of claim 227, wherein said label moiety for labeling captured product is fluorochemated.

235. (New) A kit for labeling cells that secrete a product, comprising:
- a) a product capture system comprising an anchoring moiety and a capture moiety;
 - b) a label moiety for labeling captured product; and
 - c) instructions for use of the reagents, all packaged in appropriate containers.
236. (New) The kit of claim 235 wherein said anchor moiety is prepared for coupling to the capture moiety.
237. (New) The kit of claim 235 wherein said capture moiety is prepared for coupling to the anchoring moiety.
238. (New) The kit of claim 235 wherein said anchoring moiety is coupled to said capture moiety.
239. (New) The kit of claim 236, 237 or 238 wherein said coupling is via the biotin/avidin system.
240. (New) The kit of claim 235, wherein said product capture system is a bispecific antibody.
241. (New) The kit of claim 235, wherein said label moiety for labeling captured product is magnetizable.
242. (New) The kit of claim 235, wherein said label moiety for labeling captured product is flurochromated.

243. (New) The kit of claim 162, wherein said label moiety for detecting captured product is flurochromated.

244. (New) The method of claim 170 further comprising the steps of, labeling the cells of claim 170 with at least one additional capture moiety which specifically binds an additional product; culturing said cells under conditions wherein said additional product is secreted and bound to said additional capture moiety thereby producing cells labeled with said additional product; and determining the amount of cells labeled with each product.